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(Identical with and reproduced from ISO 834/Add3-1988)

Australian Standard®

Information processing systems—Data communications—Network service definition

Supplement 2: Additional features of the network service

STANDARDS AUSTRALIA

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PREFACE

This Standard was prepared by the Standards Australia Committee on Information Processing Systems. It is identical with and has been reproduced from International Standard ISO 8348:1987, Add.3:1988.

The Standard is one of a series of Open Systems Interconnection (OSI) Standards which are currently under development. Since OSI Standards are developmental, there may be some minor difficulties encountered in their implementation. For this reason, Standards Australia will be providing a limited interpretation service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

For the purpose of this Australian Standard, the text of the ISO Standard given herein should be modified as follows:

(a) *Terminology.* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

(b) *References.* The references to international Standards should be replaced by references to Australian Standards as follows:

Reference to international Standard		*Australian Standard*	
ISO		AS	
646	Information processing—ISO 7-bit coded character set for information interchange	1776	Information processing—7-bit coded character set for information interchange
2375	Data processing—Procedure for registration of escape sequences	—	
3166	Codes for the representation of names of countries	2632	Codes for the representation of names of countries
6523	Data interchange—Structure for the identification of organizations	—	
7498	Information processing systems—Open Systems Interconnection—Basic reference model	2777	Information processing systems—Open Systems Interconnection–Basic reference model
7498:Add.1	Information processing systems—Open Systems Interconnection—Basic reference model Addendum 1: Connectionless mode transmission	2777Supp1	Information processing systems—Open Systems Interconnection–Basic reference model Supplement 1: Connectionless mode transmission
8348	Information processing systems—Data communications—Network service definition	2994	Information processing systems—Data communications—Network service definition (ISO 8348 and ISO 8348.Add.1)
8348:Add.1	Information processing systems—Data communications—Network service definition, Addendum 1: Connection-less-mode transmission	2994	Information processing systems—Data communications—Network service definition Supplement 1: Connectionless-mode transmission (ISO 8348 and ISO 8348:Add.1)
8464	Information processing systems—Data communications—Internal organization of the network layer	3622	Information processing systems—Data communications—Internal organization of the network layer
ISO/TR			
8509	Information processing systems—Open Systems Interconnection—Service conventions	3620	Information processing systems—Open Systems Interconnection—Service conventions

CCITT		
E.163	Numbering plan for the international telephone service	—
E.164	The numbering plan for the ISDN era	—
F.69	Plan for telex destination codes	—
X.121	International numbering plan for public data networks	—

Information processing systems – Data comunications – Network service definition Supplement 2: Additional features of the network service

0 Introduction

ISO 8348 is one of a set of International Standards produced to facilitate the interconnection of open systems. It is positioned with respect to the other related International Standards by the layers defined in the Reference Model of Open Systems Interconnection (ISO 7498). It is most closely related to the Transport Protocol (ISO 8073) and Network Protocol Standards. It provides for the Transport Protocol Standard a definition of the Network Service existing to support the Transport Protocol, and for Network Protocol Standards a definition of the service to be made available through the action of a Network Protocol.

CCITT and ISO have mutually agreed upon the critical importance of achieving and maintaining technical and editorial alignment in the progression of their work on Open Systems Interconnection (OSI). The CCITT Recommendation corresponding to ISO 8348 is CCITT Recommendation X.213. In order to promote the alignment of OSI standards in areas of continuing study, ISO and CCITT have agreed to work cooperatively wherever existing International Standards and Recommendations are to be modified or new ones are to be created. This addendum includes in section two material which represents a stage in the progression of work on Quality of Service which complements and extends ISO 8348.

0.1 About this addendum

ISO 8348 defines the connection-mode Network Service and ISO 8348/Add.1 defines the connectionless-mode Network Service.

This addendum describes additional features of the Network Service. These features are concerned with conveying additional Quality of Service information through interconnected subnetworks and relays to the places where it is needed. This is necessary because certain Quality of Service parameters, although currently categorized in the definition of the connection-mode Network Service as parameters which are not conveyed or negotiated, need to be notified to systems other than that requesting the Quality of Service in order to completely meet user needs. For example, one of the aspects of "priority" is the relationship between the priority of keeping an existing connection and the priority of establishing a new one. The implication of this is that when a subnetwork is blocked, some high priority new connections may be established by discarding lower priority existing connections. Even though this type of preemption is a firm requirement for some private networks, the OSI Network Service currently does not permit a subnetwork to be informed that it is required to perform this action because the relevant QOS parameter is not conveyed from end-system to subnetwork relay elements. Similarly the "protection" parameter allows the NS user to indicate security needs and this is required to permit route selection and possibly use of encipherment within the Network Layer. It will be impossible to satisfy the expressed user needs unless this parameter can also be conveyed.

0.2 Structure of this addendum

This addendum has a structure which is similar to that of ISO 8348 and ISO 8348/Add.1 in order to facilitate cross-reference between the documents and eventual incorporation of this addendum into ISO 8348.

1 Scope and field of application

The scope and field of application of this addendum are the same as the scope and field of application described in clause 1 of ISO 8348.